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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TSEGAYE, SABA	
ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/730,513	WIRYAMAN ET AL.	
	Examiner	Art Unit	
	Saba Tsegaye	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed on 06/13/05. Claims 1-31 are pending. Currently no claims are in condition for allowance.

Specification

2. The abstract of the disclosure is objected to because Applicant is required to update the status of application no. 08/886,869, cited on pate 13, line 7, by indicating that it is now --US Patent number 6,266,701--.

Claim Rejections - 35 USC § 102

3. Claims 1-4, 10, 11, 14-16, 19, 20 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Haddock et al. (US 6,859,438).

Regarding claim 1, Haddock discloses in Figs. 1a-b, a method for processing communication in a communication device (100) having a first interface (input processing 160 includes (155, 161, 150, and 165) and a second interface (output processing 185 includes (162, 175 and 170) comprising:

accepting data packets at the first interface (155) (column 6, lines 27-32);

for each accepted packet, identifying one of a plurality of classes of data flows associated with the packet (column 6, lines 27-40);

for at least some of the accepted packets queuing the packets according to the identified class for the packet (180; column 6, lines 1-14);

controlling a rate of arrival of packets at the first interface, the controlling being performed in the device (column 6, lines 41-44); and

transmitting the accepted packets from the second communication interface according a policy for priority and bandwidth allocation associated with the plurality of classes of data flows (162; column 7, lines 48-51).

Regarding claim 2, Haddock discloses the method wherein identifying the class of data flows includes examining network layer addressing data in the accepted packet (column 5, lines 38-49).

Regarding claim 3, Haddock discloses the method wherein examining network layer addressing data includes identifying destination network layer addresses of the packets (column 5, lines 38-49).

Regarding claim 4, Haddock discloses the method wherein identifying the class of data flows includes examining application layer data in the packets (column 5, lines 30-49).

Regarding claims 10, 11, 14-16, 20 and 23, Nichols discloses the method wherein the communication device communicates with devices over the first interface and the second interface as a data link layer bridge (column 5, lines 43-49).

Regarding claim 19, Haddock discloses in Figs. 1a-b, a communication device (100) comprising:

a plurality of network interfaces, including a first network interface, and a second network interface, wherein the communication device is configured to pass packets belonging to a plurality of classes of data flows between the network interfaces according to a programmable policy;

a plurality of queues (180), each associated with a different one of the classes of data flows, for accepting packets from the first network interface (column 6, lines 1-14);

storage for configuration data, including storage for a configurable policy for the classes of data flows (column 5, lines 1-67);

a rate shaper (150, 145) for controlling a rate of arrival of packets at the fist network interface according to the configurable policy (column 6, lines 15-55); and

a scheduler (170) for determining when to de-queue data packets queued in the plurality of queues according to the configurable policy for the classes of data flows (column 7, lines 38-51).

Claim Rejections - 35 USC § 103

4. Claims 1-4, 10, 11, 14-16, 19, 20, 23, 25-27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols (US 6,608,816) in view of Berthoud et al. (US 6,011,776).

Regarding claims 1, 19, 25-27 and 31, Nichols discloses, in Figs. 1 and 2, a method for processing communication in a communication device (130) having a first interface (205) and a second interface (230) comprising:

accepting data packets at the first interface (205) (column 5, lines 20-52);

for each accepted packet, identifying one of a plurality of classes of data flows associated with the packet (column 5, lines 40-62);

for at least some of the accepted packets queuing the packets according to the identified class for the packet (column 5, line 54-column 6, line 30); and

transmitting the accepted packets from the second communication interface according a policy for priority and bandwidth allocation associated with the plurality of classes of data flows (column 6, lines 31-40).

Nichols fail to disclose controlling a rate of arrival of packets at the first interface.

Berthoud teaches a source management system that comprises a Leaky Bucket Module. In the Leaky bucket module packets are launched into the network with different priority classes.

It would have been obvious to one of ordinary skill in art at the time the invention was made to use the teachings from Berthoud of controlling a rate of arrival of packets in the first interface discloses by Nichols. The motivation would have been that controlling a rate of arrival of packets allows to estimate and adapt bandwidth dynamically for large and fast traffic variation.

Regarding claim 2, Nichols discloses the method wherein identifying the class of data flows includes examining network layer addressing data in the accepted packet (column 3. lines 59-64; column 5, lines 20-30).

Regarding claim 3, Nichols discloses the method wherein examining network layer addressing data includes identifying destination network layer addresses of the packets (column 3. lines 59-64; column 5, lines 20-30).

Regarding claim 4, Nichols discloses the method wherein identifying the class of data flows includes examining application layer data in the packets (column 5, lines 20-30).

Regarding claims 10, 11, 14-16, 20 and 23, Nichols discloses the method wherein the communication device communicates with devices over the first interface and the second interface as a data link layer bridge (column 4, lines 50-58).

5. Claims 5-9, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols in view of Berthaud et al. as applied to claims 1 and 19 above, and further in view of Epstein et al. (US 6,684,329).

Nichols in view of Berthaud discloses all the claim limitations as stated above except for: passing the accepted packets to a proxy application hosted in the communication device and queuing records associated with the accepted packets (as in claims 5-9, 21 and 22); the proxy application performs a data multiplexing function (as in claim 28); the proxy application performs a data compression function (as in claim 29); ant the proxy application performs a voice over IP function (as in claim 30).

Epstein teaches, in Figs. 2 and 4, a proxy server that includes a plurality of proxy applications such as HTTP, SMPT, FTP. . . (as in claims 5-8 and 21) (column 3, lines 13-

35; column6, lines 18-65). Fig. 5 illustrates the components of a multi-part proxy 510 (column 7, line 66-column 8, line 55) (ms in claim 22). Further, Epstein teaches, in Fig. 7, queuing and de-queuing components (as in claim 9).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a proxy application, such as that suggested by Epstein, in the communication device of Nichols. The motivation would have been that a proxy application can improve performance by supplying different functions such as network security, lower user response time, and lower network utilization.

6. Claims 5 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols in view of Berthaud et al. as applied to claims 1 and 19 above, and further in view of Dillon et al. (US 6,658,463).

Nichols in view of Berthaud discloses all the claim limitations as stated above except for: a proxy application performs a data multiplexing function; a data compression function and a voice over IP function.

Dillon teaches a proxy protocol (as in claim 5) which performs transaction multiplexing which prevents a single stalled request from stalling other requests (as in claim 28); performs homogenized content compression which intelligently compresses HTTP request and response headers (as in claim 29); and a dialup access internet network (as in claim 30).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a proxy application, such as that suggested by Dillon, in the communication device of Nichols in view of Berthaud. The motivation would have been

that a proxy application can improve performance by supplying different functions such as network security, lower user response time, and lower network utilization.

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols in view of Berthaud et al. as applied to claims 1 and 19 above, and further in view of Kloth (US 6,598,034).

Nichols in view of Berthaud et al. discloses all the claim limitations as stated above except for a graphical user interface.

Kloth teaches a method and apparatus for classifying data packets and processing them to a set of rules. Further, Kloth teaches that the rules can be edited or developed via an appropriate graphical interface.

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a graphical user interface, such as that suggested by Kloth, in the communication device of Nichols in order to provide interaction for entering and revising the rules (column 9, lines 30-36).

8. Claims 17, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nichols in view of Berthaud et al. as applied to claims 1 and 19 above, and further in view of Frey (4,245,343).

Nichols in view of Berthaud. discloses all the claim limitations as stated above except for directly connecting the first interface to the second interface in the event of a fault at the communication device (as in claims 17 and 18) and a hub for coupling the first interface to both the second interface (as in claim 24).

Regarding claims 17 and 18, Frey teaches a system that automatically bypassing an inoperative data terminal (column 4, lines 33-41).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a system that directly connects the first and the second interface, such as that suggested by Frey, in the system of Nichols in view of Berthaud in order to provide a means for bypassing an inoperative terminal as well as providing for non-disruptive communication system.

Regarding claim 24, Nichols/Berthaud in view of Frey does not expressly disclose a hub.

However, It would have been obvious to one ordinary skill in the art at the time the invention was made to add a hub in the system of Nichols/Berthaud in view of Frey in order to provide a common connection to all devices on the network.

Response to Arguments

9. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
September 2, 2005

JOHN PEZZLO
PRIMARY EXAMINER